Graham, Benita

From: wentworth, paul
Sent: Monday, April 11, 2016 4:28 PM
To: Maryjoy Ulatowski
Cc: Campbell, Dave; duke, gerallyn
Subject: PES Responses to EPA Questions
Attachments: Steps 1 and 2 3_9.pptx

Hello MaryJoy : PES responses to EPA's comments regarding the September 4, 2015 PES Tier 3 Project Plan Approval Application, reveal some confusion on the correct way to do an NSR analysis; and also there appears to be confusion regarding the definition of projected actual emissions (PAE) and potential to emit (PTE) (See PES response document, response to comment #2, and response to comment #10). Finally there is a concern regarding providing emissions offsets as required by PA regulations. These responses require further clarification from PES.

1. NSR analysis – The NSR analysis consists of 2 steps (see the attachment, slide #7)
    a. In Step 1 the emission increases due to the project are first counted, NEVER DECREASES even though they are part of the project. This is a unit-by-unit analysis for every unit affected by the project.
        i. It appears that PES has combined project increases and decreases in the step 1 analysis
        ii. By including both the increases and decreases, the results demonstrated that there were no significant net emissions increases n criteria pollutants for the PSD analysis (See Table 4-1, page 19 of the PES application) and to bypass step 2. This is clearly incorrect.
        iii. PES must redo the analyses (PSD and NANSR). The attached document is available for guidance. If after correctly performing the step one analysis, the emissions increases are greater than the significant emissions thresholds (See slide #5) (See Slides #7 through #68 for guidance on how to do the step one analysis) then they must perform a step 2 analysis.
    b. Step 2 looks at all emissions increases and decreases from projects across the entire facility over a defined period of time. Step 1 only addresses emission increases from the project at hand. The goal is to calculate the "net emissions increase": (See slide #71)
        i. Conditional upon the results of the step 1 analysis, PES may or may not need to do a Step 2 analysis.
        ii. For Guidance please refer to slides 71-94
2. Post change emissions PTE vs PAE: The PSD regulations offer two options for analyzing emissions increase. Projected actual emissions (PAE) and Potential to emit (PTE) are two VERY different terms
    a. The existing language in the application appears to use PAE and PTE interchangeably, creating confusion as to which option that the facility is choosing to use. Making it more confusing is a table showing both projected firing rates and potential firing rates as limited within the current permit.
    b. PES must clearly state which way of determining applicability will be used (PAE or PTE) and consistently use the term chosen throughout the permit. (If PTE is chosen as the basis for the analysis then all references to PAE within the application or vice versa). Choosing PAE will require that the permit reflect the project emissions as limits.
    c. Emissions are normally calculated as the product of an emissions factor (EF) and an activity level (AL): E = EF x AL. AL can be the activity level over a day, a month, a year, etc. The application should contain within its body: an activity level table showing the firing rates for each unit of the project that will be used for the analysis and the emissions factors for each criterion air pollutant of concern for each unit of the project, so that the permitting agency, the EPA and the public can follow the steps of the analysis and to assure that the applicability determination process is proceeding correctly.

3. Emissions offsets
    a. EPA appreciates that PES has responded to EPA's concern regarding the present lack of sufficient ERC credits (VOC) to fulfill the offset requirement by indicating that it is active discussions with a third party, but there remains a concern regarding securing sufficient VOC ERCs.

b. EPA would like to note that the facility must keep in mind that ERCs can be transferred from a dirtier area to a cleaner area, however, credits cannot be transferred from a cleaner area into a dirtier area. If they are created in the five Philadelphia counties (Bucks, Chester, Delaware, Montgomery and Philadelphia), they may be transferred to users in the five-county area with some limitations. If ERCs are created in the remainder of the state, they may be transferred to anywhere within the state except the five-county Philadelphia area.
c. It is also to be noted that under Pennsylvania regulations: (§ 127.206. ERC general requirements) The Department may issue a plan approval for the construction of a new or modified facility which satisfies the offset requirements specified in § 127.205(3) and (4) (relating to special permit requirements) under the following conditions:

    i. The application for a plan approval demonstrates that the proposed facility either has or will secure the appropriate ERCs which are suitable for use at the specific facility: <u>The facility has not yet secured the required number of VOC offsets needed.</u>

    ii. The ERCs shall be identified in a Department approved and Federally enforceable permit condition for the ERC generating source: <u>The ERCs have been identified</u>

    iii. The permit condition will provide that the ERCs are properly generated, certified by the Department and processed through the registry no later than the date approved by the Department for commencement of operation of the proposed new or modified facility. ; <u>The permit as yet does not contain an approved commencement of operation date</u>

    iv. The owner or operator of the proposed new or modified facility may not commence operation or increase emissions until the required emissions reductions are certified and registered by the Department : <u>The permit does not contain this language.</u>

    v. Also of note, that any interpollutant trading being consider must first undergo thorough analysis before a this type of trading occurs (See Below)

d. In Summary, the permit must contain the specific language from Pennsylvania regulations: (§ 127.206. ERC general requirements) pointed out in subsections c.iii and c.iv.

4. Interpollutant Trading
    a. The facility may be able to satisfy the VOC offset requirement through the use of interpollutant ozone precursor trading. Please note that EPA must approve such a request and that the permitting agency must make the request which is a case-by-case request which likely would involve photochemical modeling to justify the trading and to provide the basis of a trading ratio between NOx and VOC. Please consult with EPA Region 3 for the details on the correct procedure if this is under consideration.

Regards

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Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.
Viktor E. Frankl